Sequence Listing

<110> Leonard Presta

<120> Polypeptide Variants with Altered Effector Function

<130> P1726R1

<141> 2000-01-14

<150> US 60/116,023
<151> 1999-01-15

<160> 11

<210> 1
<211> 218
<212> PRT
<213> Artificial Sequence

<220>
<221> Artificial Sequence
<222> 1-218
<223> Sequence is completely synthesized

<400> 1

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Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
  1               5                  10                  15

Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Lys Pro Val Asp
                20                  25                  30

Gly Glu Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly
                35                  40                  45

Lys Ala Pro Lys Leu Leu Ile Tyr Ala Ala Ser Tyr Leu Glu Ser
                50                  55                  60

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
                65                  70                  75

Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr
                80                  85                  90

Tyr Cys Gln Gln Ser His Glu Asp Pro Tyr Thr Phe Gly Gln Gly
                95                 100                 105

Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
               110                 115                 120

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser
               125                 130                 135

Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val
               140                 145                 150

Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
               155                 160                 165
```

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
170 175 180

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
185 190 195

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
200 205 210

Lys Ser Phe Asn Arg Gly Glu Cys
215 218

<210> 2
<211> 451
<212> PRT
<213> Artificial Sequence

<220>
<221> Artificial Sequence
<222> 1-451
<223> Sequence is completely synthesized

<400> 2
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
1 5 10 15

Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Tyr Ser Ile Thr
20 25 30

Ser Gly Tyr Ser Trp Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly
35 40 45

Leu Glu Trp Val Ala Ser Ile Lys Tyr Ser Gly Glu Thr Lys Tyr
50 55 60

Asn Pro Ser Val Lys Gly Arg Ile Thr Ile Ser Arg Asp Asp Ser
65 70 75

Lys Asn Thr Phe Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Ala Arg Gly Ser His Tyr Phe Gly His
95 100 105

Trp His Phe Ala Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser
110 115 120

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser
125 130 135

Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
140 145 150

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
155 160 165

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
170 175 180

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
185 190 195

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
200 205 210

Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
215 220 225

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
245 250 255

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
275 280 285

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
290 295 300

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
305 310 315

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
320 325 330

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
335 340 345

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
350 355 360

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
365 370 375

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
380 385 390

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
395 400 405

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
410 415 420

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
425 430 435

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
440 445 450

Lys
451

<210> 3
<211> 218
<212> PRT
<213> homo sapiens

<400> 3

```
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
   1               5                  10                  15

 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
                20                  25                  30

 Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
                35                  40                  45

 Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
                50                  55                  60

 Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
                65                  70                  75

 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
                80                  85                  90

 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
                95                 100                 105

 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
               110                 115                 120

 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
               125                 130                 135

 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
               140                 145                 150

 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
               155                 160                 165

 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
               170                 175                 180

 Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
               185                 190                 195

 Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
               200                 205                 210

 Ser Leu Ser Leu Ser Pro Gly Lys
               215                 218
```

<210> 4
<211> 218
<212> PRT
<213> homo sapiens

<400> 4
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
1 5 10 15

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
35 40 45

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
50 55 60

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
65 70 75

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
80 85 90

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
95 100 105

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
110 115 120

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
125 130 135

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
140 145 150

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
155 160 165

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
170 175 180

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
185 190 195

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
200 205 210

Ser Leu Ser Leu Ser Pro Gly Lys
215 218

<210> 5
<211> 217
<212> PRT
<213> homo sapiens

<400> 5
Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro
1 5 10 15

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
20 25 30

```
Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
                  35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
                  50                  55                  60

Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
                  65                  70                  75

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
                  80                  85                  90

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr
                  95                 100                 105

Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
                 110                 115                 120

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
                 125                 130                 135

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
                 140                 145                 150

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
                 155                 160                 165

Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
                 170                 175                 180

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
                 185                 190                 195

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
                 200                 205                 210

Leu Ser Leu Ser Pro Gly Lys
                 215     217
```

<210> 6
<211> 218
<212> PRT
<213> homo sapiens

<400> 6

```
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
   1               5                  10                  15

 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
                  20                  25                  30

 Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
                  35                  40                  45

 Phe Lys Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
                  50                  55                  60
```

```
Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
                65                  70                  75

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
                80                  85                  90

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
                95                 100                 105

Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
               110                 115                 120

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
               125                 130                 135

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
               140                 145                 150

Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Asn Tyr Asn Thr Thr
               155                 160                 165

Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
               170                 175                 180

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe Ser
               185                 190                 195

Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys
               200                 205                 210

Ser Leu Ser Leu Ser Pro Gly Lys
               215         218
```

<210> 7
<211> 218
<212> PRT
<213> homo sapiens

<400> 7

```
 Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
   1               5                  10                  15

 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
                20                  25                  30

 Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln
                35                  40                  45

 Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
                50                  55                  60

 Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
                65                  70                  75

 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
                80                  85                  90
```

```
Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
                 95                  100                 105

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
                110                 115                 120

Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser
                125                 130                 135

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
                140                 145                 150

Glu Trp Glx Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
                155                 160                 165

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg
                170                 175                 180

Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
                185                 190                 195

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
                200                 205                 210

Ser Leu Ser Leu Ser Leu Gly Lys
                215         218
```

<210> 8
<211> 215
<212> PRT
<213> Mus musculus

<400> 8

```
Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys Pro
  1               5                  10                  15

Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
                 20                  25                  30

Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp
                 35                  40                  45

Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg
                 50                  55                  60

Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro
                 65                  70                  75

Ile Met His Gln Asp Cys Leu Asn Gly Lys Glu Phe Lys Cys Arg
                 80                  85                  90

Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser
                 95                 100                 105

Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro
                110                 115                 120
```

```
Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys
                125                 130                 135

Met Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln
                140                 145                 150

Trp Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile
                155                 160                 165

Met Asp Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val
                170                 175                 180

Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val
                185                 190                 195

Leu His Glu Gly Leu His Asn His His Thr Glu Lys Ser Leu Ser
                200                 205                 210

His Ser Pro Gly Lys
                215
```

<210> 9
<211> 218
<212> PRT
<213> Mus musculus

<400> 9

```
 Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
   1               5                  10                  15

 Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val
                20                  25                  30

 Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln
                35                  40                  45

 Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr
                50                  55                  60

 Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser
                65                  70                  75

 Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe
                80                  85                  90

 Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg
                95                 100                 105

 Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr
                110                 115                 120

 Val Leu Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr
                125                 130                 135

 Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val
                140                 145                 150
```

```
Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr
                155                 160                 165

Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys
                170                 175                 180

Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser
                185                 190                 195

Cys Ser Val Val His Glu Gly Leu His Asn His His Thr Thr Lys
                200                 205                 210

Ser Phe Ser Arg Thr Pro Gly Lys
                215         218
```

<210> 10
<211> 218
<212> PRT
<213> Mus musculus

<400> 10

```
 Pro Ala Pro Asn Leu Glu Gly Gly Pro Ser Val Phe Ile Phe Pro
   1               5                  10                  15

 Pro Asn Ile Lys Asp Val Leu Met Ile Ser Leu Thr Pro Lys Val
                20                  25                  30

 Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln
                35                  40                  45

 Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr
                50                  55                  60

 Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Ile Arg Val Val Ser
                65                  70                  75

 His Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe
                80                  85                  90

 Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ser Pro Ile Glu Arg
                95                 100                 105

 Thr Ile Ser Lys Pro Lys Gly Leu Val Arg Ala Pro Gln Val Tyr
               110                 115                 120

 Thr Leu Pro Pro Pro Ala Glu Gln Leu Ser Arg Lys Asp Val Ser
               125                 130                 135

 Leu Thr Cys Leu Val Val Gly Phe Asn Pro Gly Asp Ile Ser Val
               140                 145                 150

 Glu Trp Thr Ser Asn Gly His Thr Glu Glu Asn Tyr Lys Asp Thr
               155                 160                 165

 Ala Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Ile Tyr Ser Lys
               170                 175                 180
```

```
Leu Asn Met Lys Thr Ser Lys Trp Glu Lys Thr Asp Ser Phe Ser
                185                 190                 195

Cys Asn Val Arg His Glu Gly Leu Lys Asn Tyr Tyr Leu Lys Lys
                200                 205                 210

Thr Ile Ser Arg Ser Pro Gly Lys
                215         218
```

<210> 11
<211> 218
<212> PRT
<213> Mus musculus

<400> 11

```
 Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
   1               5                  10                  15

 Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr Pro Lys Val
                20                  25                  30

 Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val His
                35                  40                  45

 Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp Thr
                50                  55                  60

 Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
                65                  70                  75

 Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe
                80                  85                  90

 Lys Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg
                95                 100                 105

 Thr Ile Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr
               110                 115                 120

 Thr Ile Pro Pro Pro Arg Glu Gln Met Ser Lys Lys Lys Val Ser
               125                 130                 135

 Leu Thr Cys Leu Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val
               140                 145                 150

 Glu Trp Glu Arg Asn Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr
               155                 160                 165

 Pro Pro Ile Leu Asp Ser Asp Gly Thr Tyr Phe Leu Tyr Ser Lys
               170                 175                 180

 Leu Thr Val Asp Thr Asp Ser Trp Leu Gln Gly Glu Ile Phe Thr
               185                 190                 195

 Cys Ser Val Val His Glu Ala Leu His Asn His His Thr Gln Lys
               200                 205                 210
```

Asn Leu Ser Arg Ser Pro Gly Lys
215 218